September 2006

This distribution contains change pages for patch MD*1.0*4 of the Clinical Procedures 1.0 Implementation Guide.

Patch MD*1.0*4 pages:

Replace Pages:	With Pages:
Revision History	Revision History
Table of Contents	Table of Contents
6-7 to 6-28	6-7 to 6-28
17-1 to 17-2	17-1 to 17-2

Revision History

Description	Date	Technical Writer
Originally released.	April 2004	
[1]Patch MD*1.0*4 released.	September 2006	Alfred Bustamante

[1] Patch MD*1.0*4 September 2006 Patch 4 release added.

Table of Contents

Bi-Directional Capabilities: This section contains specifics on the bi-directional capabilities of the instrument.

Bi-Directional Instrument: Select this option if this instrument supports a bi-directional interface.

IP Address: Enter the IP address for the instrument (7-15 characters). This field is for documentation purposes only. Refer to Chapter 10 – Setting Up HL7 Parameters, 10-1, for more information. Optional.

Port: Enter the port number for the instrument (a number between 1000 and 99999). This field is for documentation purposes only. Refer to Chapter 10 – Setting Up HL7 Parameters, 10-1, for more information. Optional.

HL7 Inst ID: Enter the name of the actual device as provided by the vendor. This field is used to ID the device (3-30 characters). You can contact TSO or NVS for the correct ID. Must be filled in for an active instrument to work properly.

HL7 Unv Svc ID: This field defines what type of procedure the device can perform if the device can perform more than one procedure (1-48 characters). Optional.

HL7 Link: There is one unique link for each instrument. Select the appropriate link to the instrument from the dropdown list. Must be filled in for an active instrument to work properly.

Server Executable: The following fields make up the path for the automated instrument server (http://servername/servershare/serverpath/server.exe). Some devices do not produce reports that can be saved. Enter these fields if you want to capture a report from that type of device.

Server Name: The network name of the automated instrument (1-30 characters).
Server Share: The name of the share drive on the automated instrument server (1-30 characters).
Server Path: The full directory path on the automated instrument share (1-150 characters).
Server Executable: The name of the executable that produces the report on the automated instrument (1-30 characters). Browse to find the path where the server.exe program resides.

Adding an Automated Instrument

If a site has an instrument that needs to interface with CP, and that instrument is not exported with the Clinical Procedures package, you need to add the instrument. Make sure that CP supports the instrument interface. (The Mallinckrodt Clinivision, Olympus Endoworks, GE Medical Systems Muse and Viasys/Sensormedics Vmax automated device interfaces are exported with Clinical Procedures.) You can also find an updated list of supported devices on the CP website at http://vista.med.va.gov/ClinicalSpecialties/clinproc/.
Click Medical Device Interfaces on the left navigation bar, and then click About Medical Interfaces.

[1]A warning screen displays when you attempt to add a new instrument (Fig. 6-3). This warning screen informs you that you should make sure CP supports the instrument interface you are attempting to add.

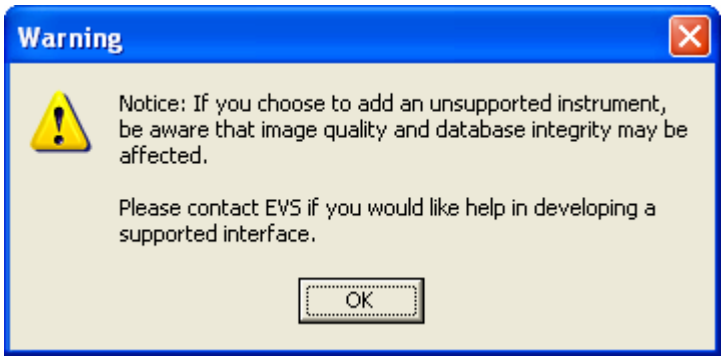


Fig.. 6-3

If you are adding a new instrument (bi-directional or uni-directional) that is not supported by CP, then you can use the New Instrument Request form, which is also located on the CP website at http://vista.med.va.gov/ClinicalSpecialties/clinproc/. You can also check 16-1 for a list of instruments. Keep in mind that adding unsupported instruments is a complex task and may cause some image quality problems.

In most cases, you can edit an existing automated instrument instead of adding a new one because several automated instruments are installed with Clinical Procedures. To view the names of devices, click the Instruments folder. A list of automated instruments is displayed on the left side of the Clinical Procedures Manager window (Fig. 6-4).

[1] Patch MD*1.0*4 September 2006 Add instrument warning added.

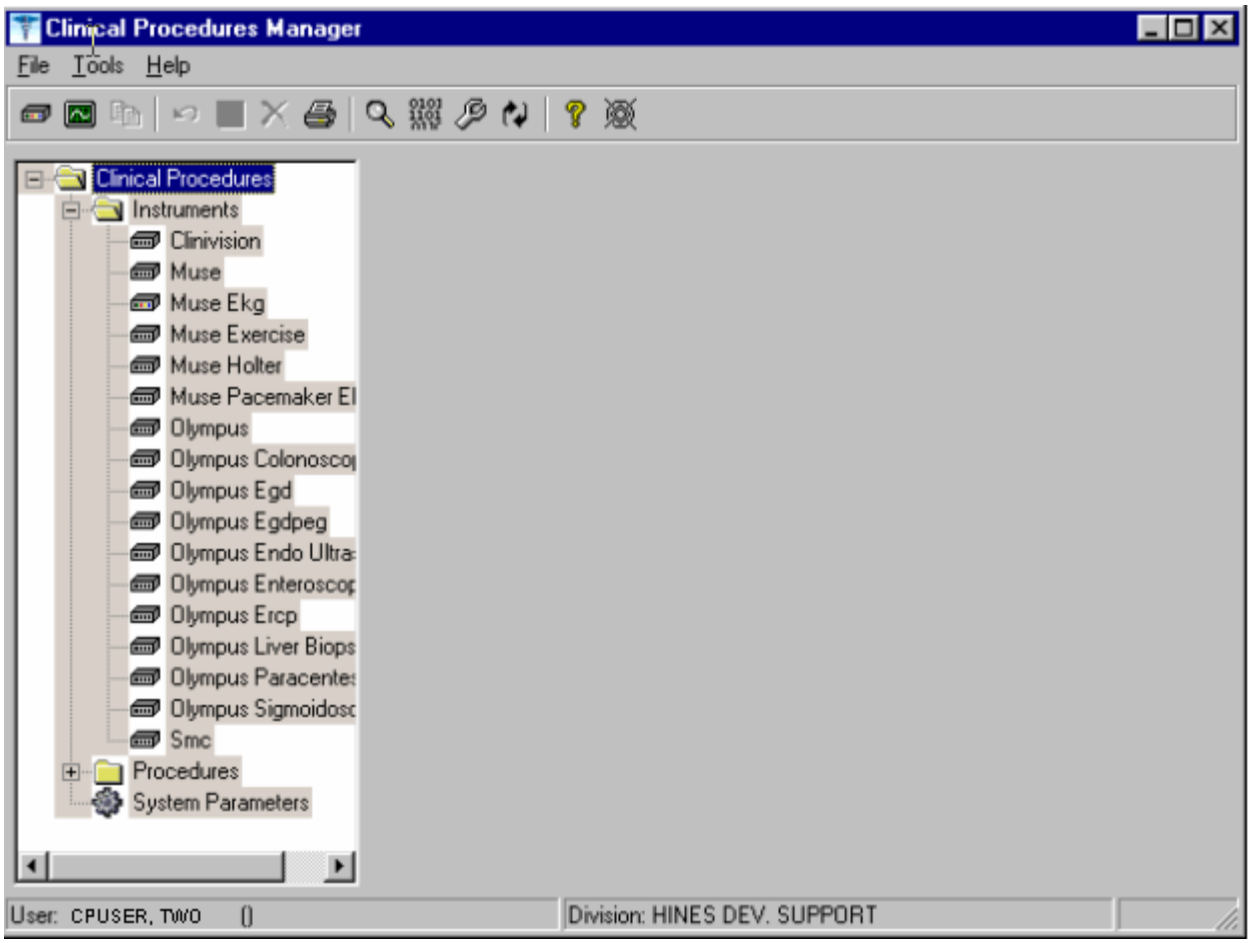


Fig. 6-4

Indicates active instruments.
Indicates non-active instruments.

1. Select **File** > **New** > **Instrument**. The New Instrument screen is displayed.

2. Enter a name that can be used to identify the automated instrument. If you are adding a new instrument that is already supported by CP, do one of the following:

   - If the device is bi-directional, you can enter a name of your own choice, such as Muse EKG (Tampa), (3-30 characters). The name does not have to be the vendor's name.

   - If the device is uni-directional, enter a CP defined name. In this case, you can contact TSO or NVS for the correct instrument name.

   If you are adding a new instrument (bi-directional or uni-directional) that is not supported by CP, then you must you must enter a NOIS/Remedy help ticket. Keep in mind that adding unsupported instruments is a complex task and may cause some image quality problems.

This field must be filled in for an active instrument to work properly.

3. Click **OK**. The Edit screen is displayed. Fig. 6-5 is the edit screen for automated instruments. The Automated Instrument Name that you just entered is displayed.

4. Enter data for each field as applicable. Refer to Editing an Automated Instrument, 6-3, for detailed field descriptions.

5. Click **Save** when you are done.

6. Click **Print** if you want to print an Automated Instrument report. See Printing Reports, 2-4.

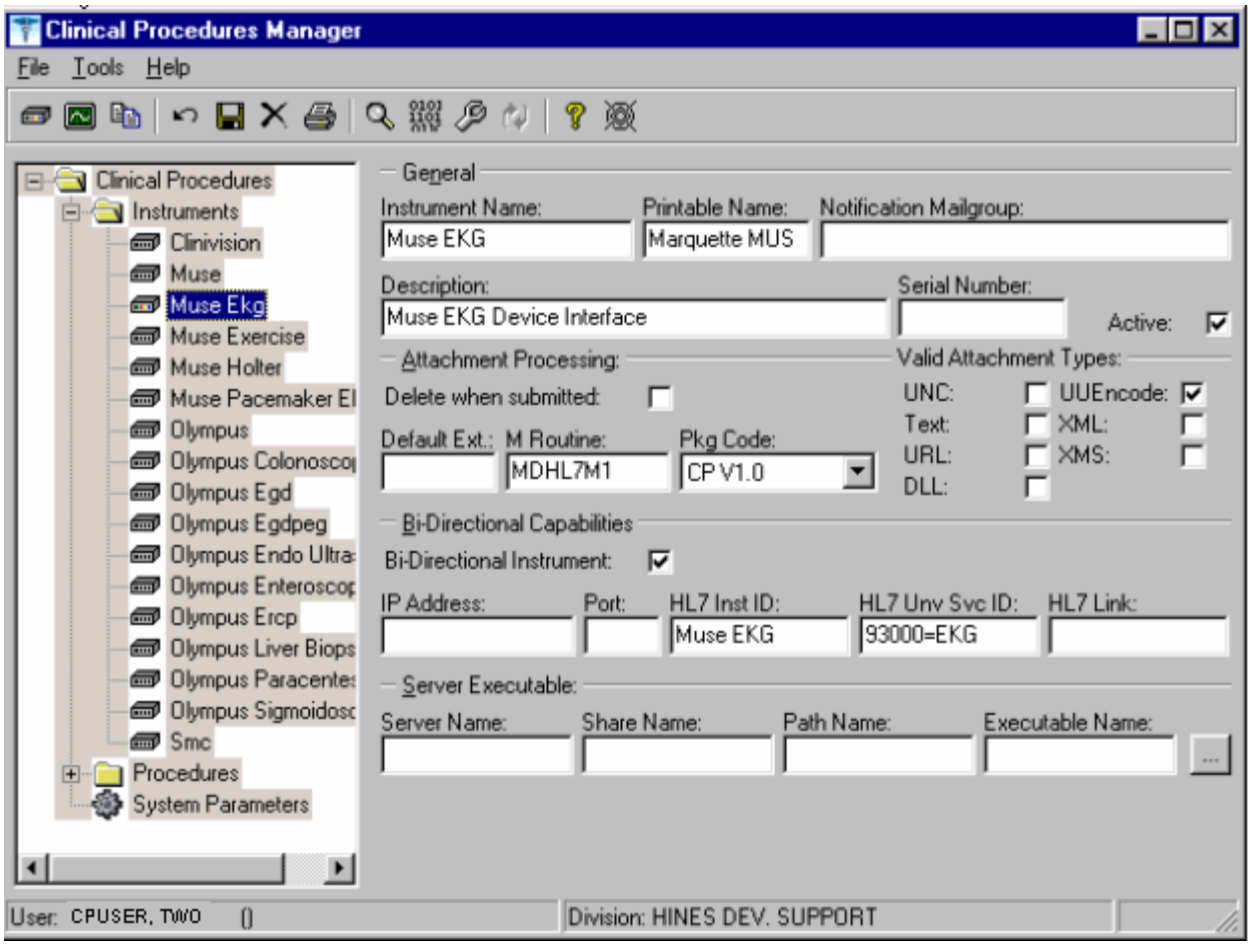


Fig. 6-5

Using the Instrument Analyzer

Use the Instrument Analyzer to see if an automated instrument is ready to use with CP.

1. Select **Tools > Instrument Analyzer**.
2. Select the instrument that you want to analyze. Click **Analyze**. A window similar to Fig. 6-6 is displayed. This window indicates the ready status of the instrument and lists other information as well.

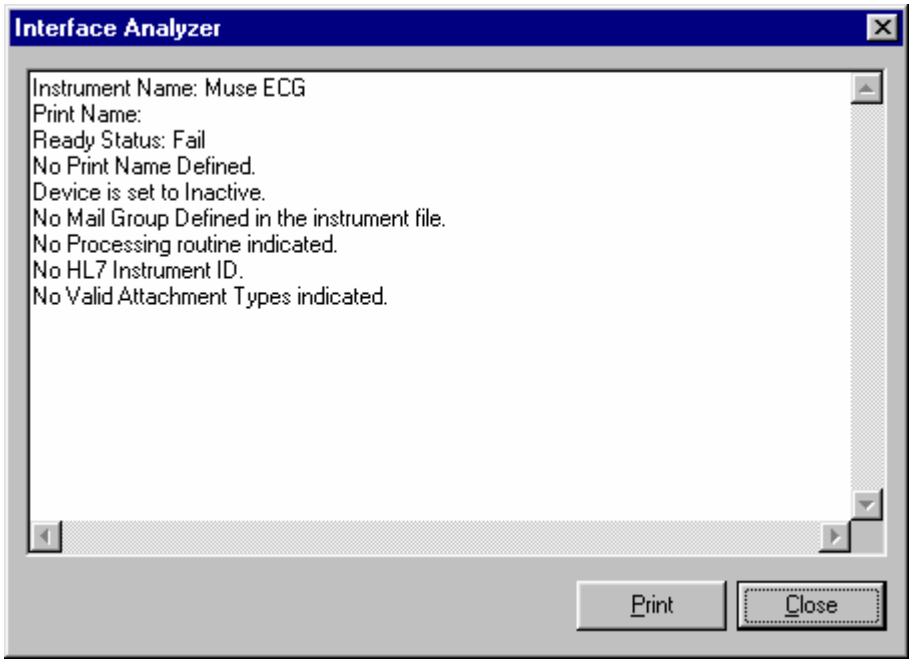


Fig. 6-6

- Ready Status - Pass or Fail. If the Ready Status is Fail, a list of missing fields for that automated instrument is displayed.
- If an Imaging share directory has not been configured, the following message is displayed "No Imaging Share indicated in the System Parameters."
- If the M Routine (processing routine) is not in the MD or MC namespace, a warning is displayed indicating that the M Routine is not in the package namespace.

3. Click **Print** or **Close**.

Step 3 – Setting Up Procedures

Information on procedures is **not complete** after populating the CP Definition file. **You must go into CP Manager and enter the necessary fields before the package will work successfully.**

If the INIT^MDPOST routine was run, a limited number of exported procedures are stored in a subfolder called Unassigned within the Procedures folder. If the INIT^MDPOST routine was not run, then you need to add new procedures. Since all procedures are initially inactive, you need to activate existing procedures and associate them with treating specialties.

Editing a Procedure

If the procedures have been exported, then you can edit them as needed. Using CP Manager, you must move each procedure that you want to activate from the Unassigned folder to a treating specialty folder.

- Double-click the procedure. Now you can edit the procedure, complete the necessary fields, and make the procedure active.

- To activate the procedure, be sure to select the Active field, and then fill in the following fields to ensure that the procedure works properly

  Treating Specialty
  TIU Note Title
  Hospital Location

To edit a procedure:

1. View the list of procedures. See Fig. 6-7.

2. Click a procedure name. The edit screen is displayed on the right side of the Clinical Procedures Manager window.

3. Enter the fields as applicable.

4. Click **Save** when you are done.

5. If you selected a different treating specialty folder, a confirmation message is displayed. Click **OK** to confirm that the procedure is in the correct treating specialty folder.

6. Click **Print** if you want to print a Procedure report. See Printing Reports, 2-4.

Note: A procedure can only be deleted through the main menu bar. Refer to the section Deleting an Automated Instrument or Procedure, 2-3, for more information. If a procedure has been assigned through Consults, it cannot be deleted.

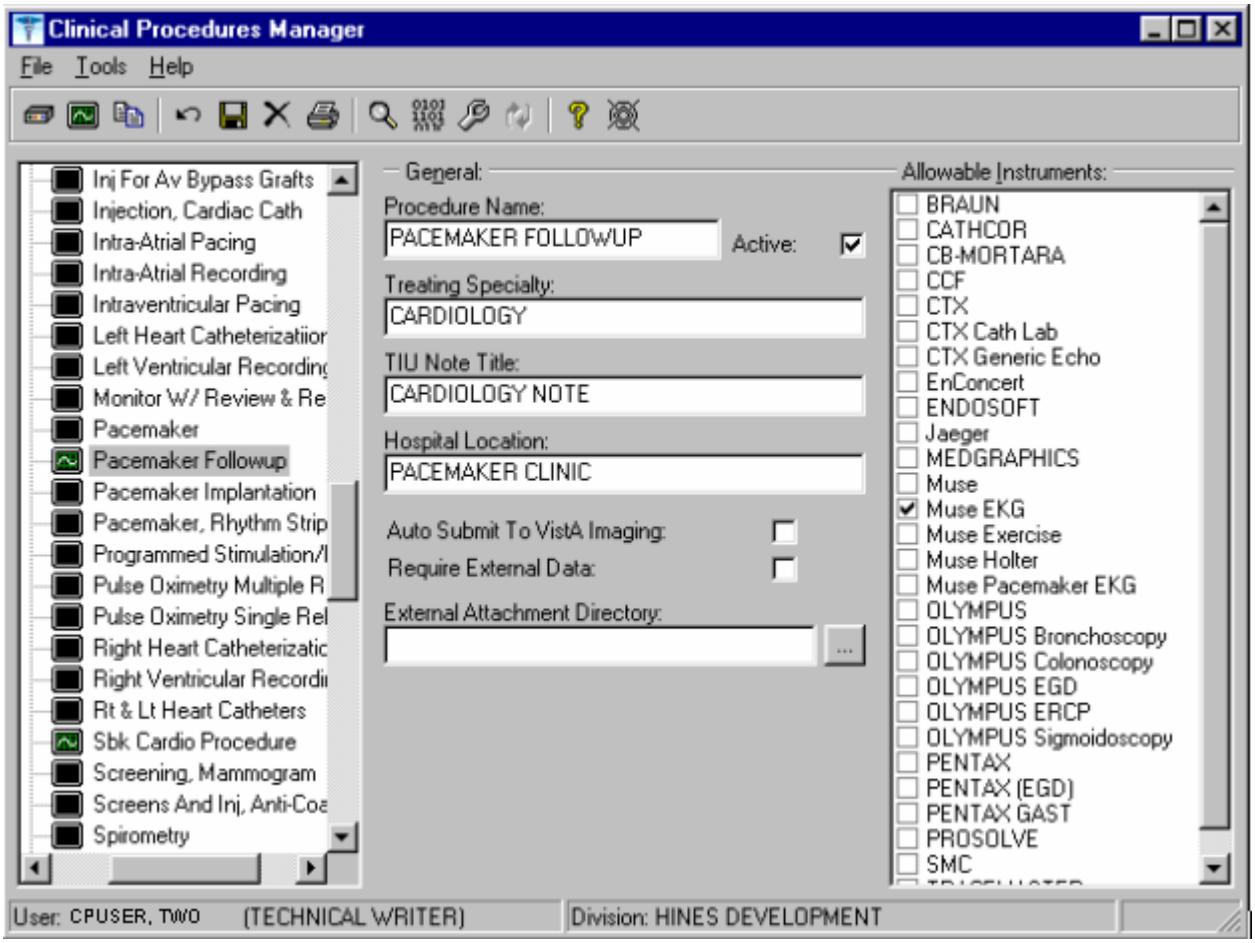


Fig. 6-7

Here is a list of fields for Procedures.

General: This section contains general information about the procedure.

Procedure Name: Enter a name used to uniquely identify the procedure (3-30 characters). It is recommended that you enter the name in uppercase, such as PACEMAKER FOLLOWUP.

After you complete the edits, if you entered the name in upper case, the procedure name that you just entered is displayed in title case, Pacemaker Followup, (the first letter of every word is capitalized), in the left side of the CP Manager window. See Figure 6.6.

Active: Select if you want the procedure to be mapped to Consults. Only active procedures can be selected and linked to the Consults package. Be sure to fill in the Treating Specialty,

TIU Note Title, and Hospital Locations fields. Do not select if you do not want procedures to display. Must be selected to make this procedure active.

Treating Specialty: Enter at least two letters of a treating specialty, such as CA for CARDIOLOGY, and then click the down arrow to select an appropriate match from the list. This list comes from the Treating Specialty (#45.7) file. Must be filled in for an active procedure to work properly.

TIU Note Title: Enter at least two letters of a TIU Note Title, such as CP CARD for CP CARDIOLOGY NOTE or CARD for CARDIOLOGY, and then click the down arrow to select an appropriate match from the list, which comes from the 8925.1 file. This title must be in the CLINICAL PROCEDURES CLASS. Must be filled in for an active procedure to work properly.

[1]**Hospital Location**: Enter at least two letters of a hospital location, such as CA for Cardiac Clinic, and then click the down arrow to select an appropriate match from the list, which comes from the #44 file. The Hospital Location file is the location where the workload credit for the procedure is tracked and is needed so CPRS can display the appropriate encounter form when prompted. Must be filled in for an active procedure to work properly.

You can enter a COUNT or NON-COUNT clinic for the hospital location.

- A COUNT clinic captures workload. Patients must be checked in and checked out and an encounter form must be completed in order to collect workload.
- A NON-COUNT clinic is used only for scheduling purposes and not for workload reporting.

There are three options available for setting up your clinics. The appropriate option for your site depends on how you currently do business and should be discussed with your project implementation manager.

- COUNT clinic for scheduling purposes / NON-COUNT clinic for CP User. Patient must be checked in/out and encounter form completed on the scheduled appointment. CP User appointment will not collect workload.
- NON-COUNT clinic for scheduling purposes / COUNT clinic for CP User. Appointment in scheduling package does not need to be checked in/out, nor does an encounter form need to be completed for the appointment. The check in/out and encounter form must be completed for the appointment created through CP User.
- COUNT clinic for scheduling purposes that passes over to CP User. Patient must be checked in/out and encounter form must be completed. Note, however, that if you use Appointment Manager to check in the patient, you may have to wait up to thirty

[1] Patch MD*1.0*4 September 2006 Wording for Count/Non-count clinic modified.

minutes before you can check-in the patient to CP. During the thirty-minute timeframe, the Patient Care Encounter (PCE) application establishes the visit date. (If you use the Scheduling application to capture workload, make sure that the clinic location is the same as the default location in the Hospital Location field.)

Auto Submit to VistA Imaging: Select if a procedure is processed by a bi-directional instrument and additional data does not need to be matched. The study is automatically submitted to V*IST*A Imaging. If this field is not selected, the study will be in the Ready to Complete status. Optional.

Require External Data: Select if you want this procedure to allow external attachments. For example, you might want to attach an independent report from a VA or non-VA health care facility. If you want to manually select external attachments, you must select this field.

Be sure the **Allow Non-Instrument Attachments** checkbox is selected in **CP Manager > System Parameters**. There is no default for this field.

External Attachment Directory: If you select Require External Data, enter the path where the data is located, or browse to locate a directory (3-150 characters). There is no default on this field. You can locate any directory on the LAN. This is the directory that CP User accesses to find attachments. This directory must be a network share directory that the VistA Imaging Background Processor can access.

Allowable Instruments: Select each automated instrument that provides results for this procedure. You can select more than one instrument for a procedure. If you only want to use external attachments, do not select any instruments.

You can select both **Allowable** Instruments and **Require External Data**. For example, you can have a pathology report from an endoscopy and you can attach the report to the procedure.

Adding a Procedure

Before you add a procedure, you can check to see if an appropriated titled procedure already exists that meets your needs. To view the names of procedures, select Procedures and then the appropriate treating specialty folder. A list of procedures is displayed. See Fig. 6-8.

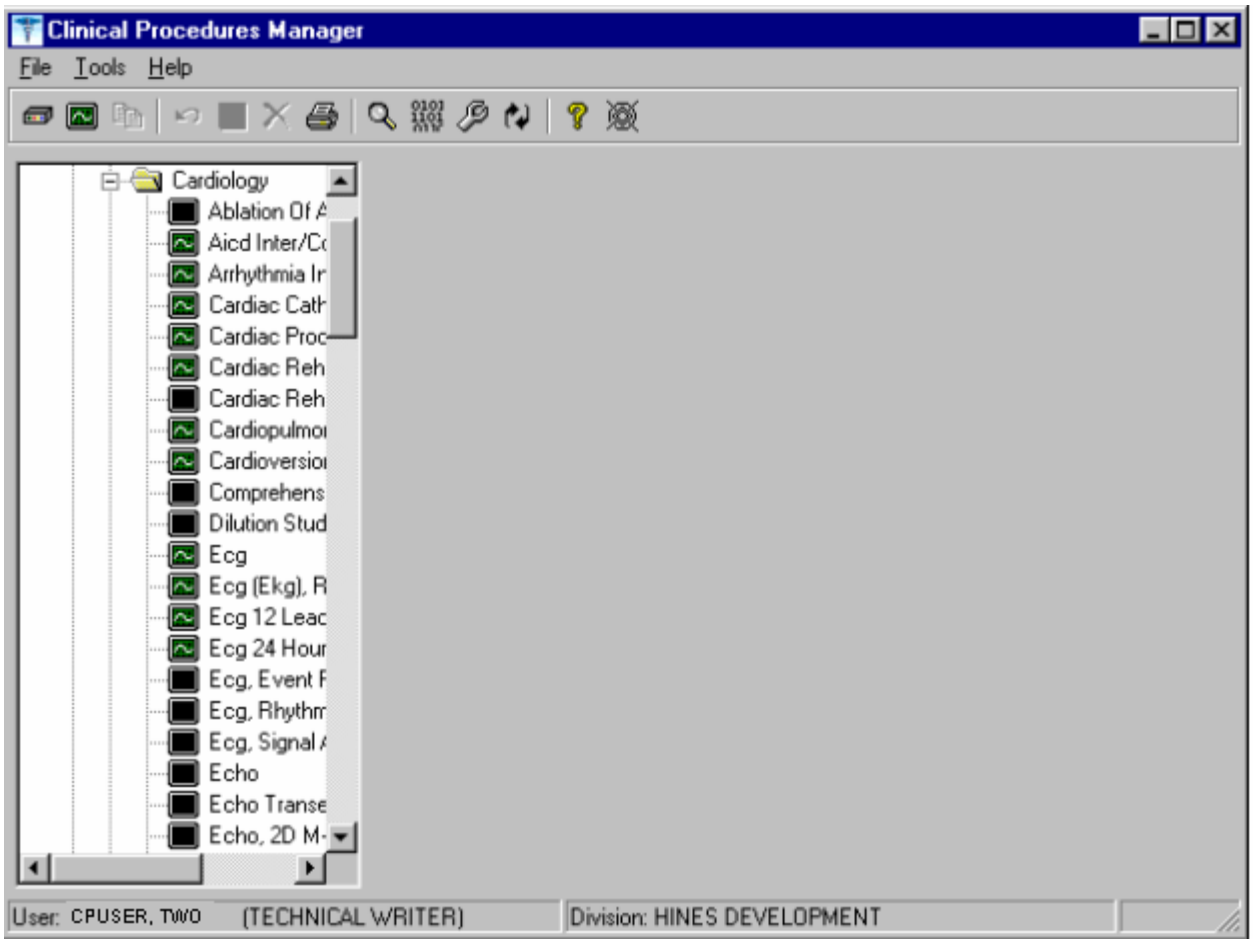


Fig. 6-8

- Identifies an active procedure
- Identifies a inactive procedure

If you decide that you do need to add a procedure, follow these instructions:

1. Select **File > New > Procedure**.

2. Enter the name of the procedure that you want to add. It is recommended that you enter the name in uppercase with a minimum of 3 characters and a maximum of 30 characters.

3. Click **OK**. The Edit screen is displayed. Fig. 6-9 is the edit screen for procedures. The Procedure Name that you just entered is displayed in the left side of the CP Manager window in the Unassigned folder.

4. Enter data for each field as applicable. Refer to Editing a Procedure, 6-12, for detailed field descriptions.

5. Click **Save** when you are done. After you complete the edits, if you entered the name in upper case, the procedure name that you just entered is displayed in title case.

6. Click **OK.** The new procedure appears in the list on the left side of the CP Manager window. Check that the procedure is placed in the correct treating specialty folder.

7. Click **Print** if you want to print a Procedure report. See Printing Reports, 2-4.

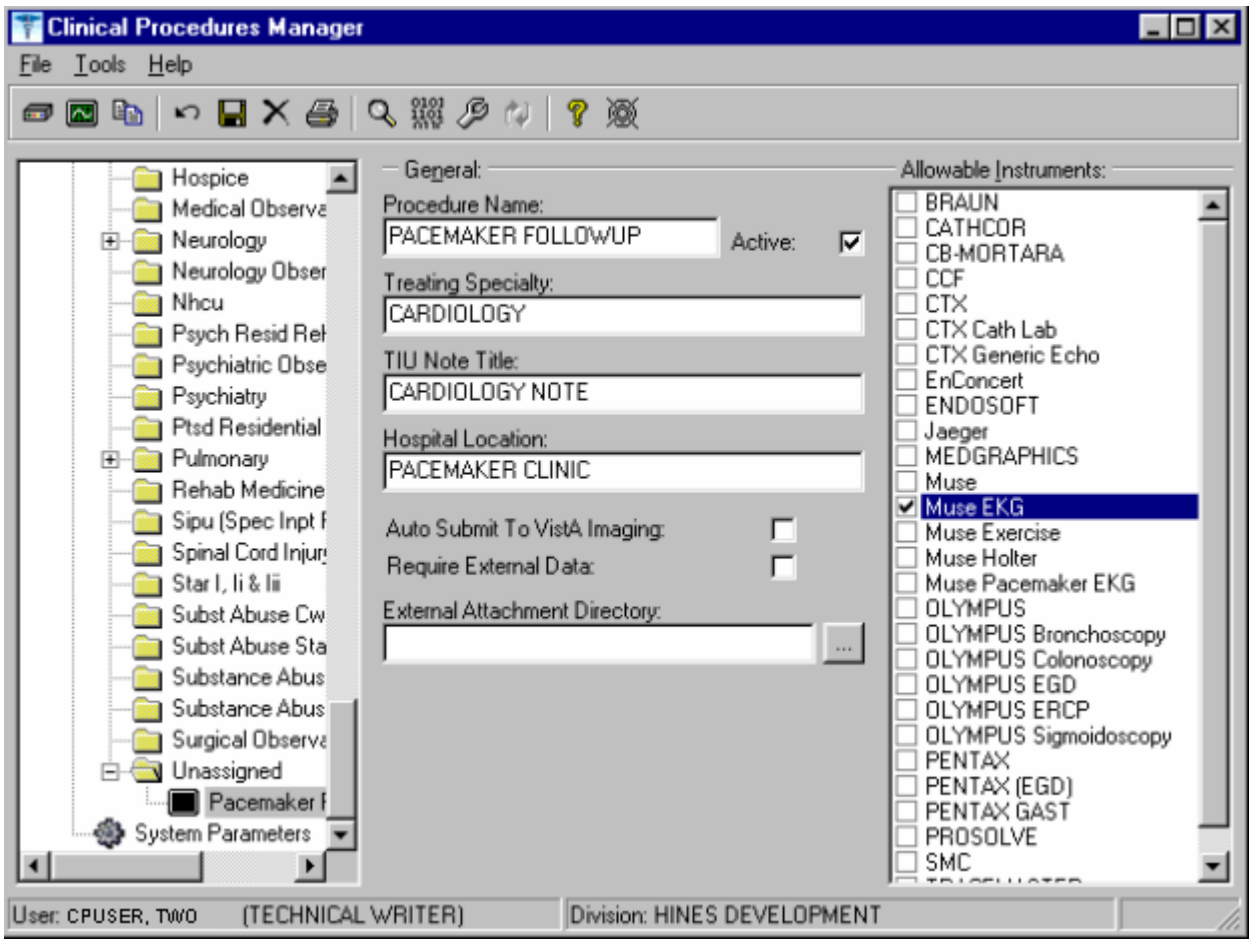

Clinical Procedures Manager
File Tools Help
Hospice
Medical Observa
Neurology
Neurology Obser
Nhcu
Psych Resid Reh
Psychiatric Obse
Psychiatry
Ptsd Residential
Pulmonary
Rehab Medicine
Sipu (Spec Inpt F
Spinal Cord Injur
Star I, Ii & Iii
Subst Abuse Cw
Subst Abuse Sta
Substance Abus
Substance Abus
Surgical Observa
Unassigned
Pacemaker F
System Parameters
General:
Procedure Name:
PACEMAKER FOLLOWUP
Active:
Treating Specialty:
CARDIOLOGY
TIU Note Title:
CARDIOLOGY NOTE
Hospital Location:
PACEMAKER CLINIC
Auto Submit To VistA Imaging:
Require External Data:
External Attachment Directory:
...
Allowable Instruments:
BRAUN
CATHCOR
CB-MORTARA
CCF
CTX
CTX Cath Lab
CTX Generic Echo
EnConcert
ENDOSOFT
Jaeger
MEDGRAPHICS
Muse
Muse EKG
Muse Exercise
Muse Holter
Muse Pacemaker EKG
OLYMPUS
OLYMPUS Bronchoscopy
OLYMPUS Colonoscopy
OLYMPUS EGD
OLYMPUS ERCP
OLYMPUS Sigmoidoscopy
PENTAX
PENTAX (EGD)
PENTAX GAST
PROSOLVE
SMC
User: CPUSER, TWO (TECHNICAL WRITER)
Division: HINES DEVELOPMENT

Fig. 6-9

Step 4 – Setting Up System Parameters

System parameters are system-wide and affect all procedures and instruments. You must select Clinical Procedure On-Line, and fill in the Imaging Network Share and the VistA Scratch HFS Directory fields for CP to work properly. You can edit the other parameters as required for your site.

Here is a list of the system parameters:

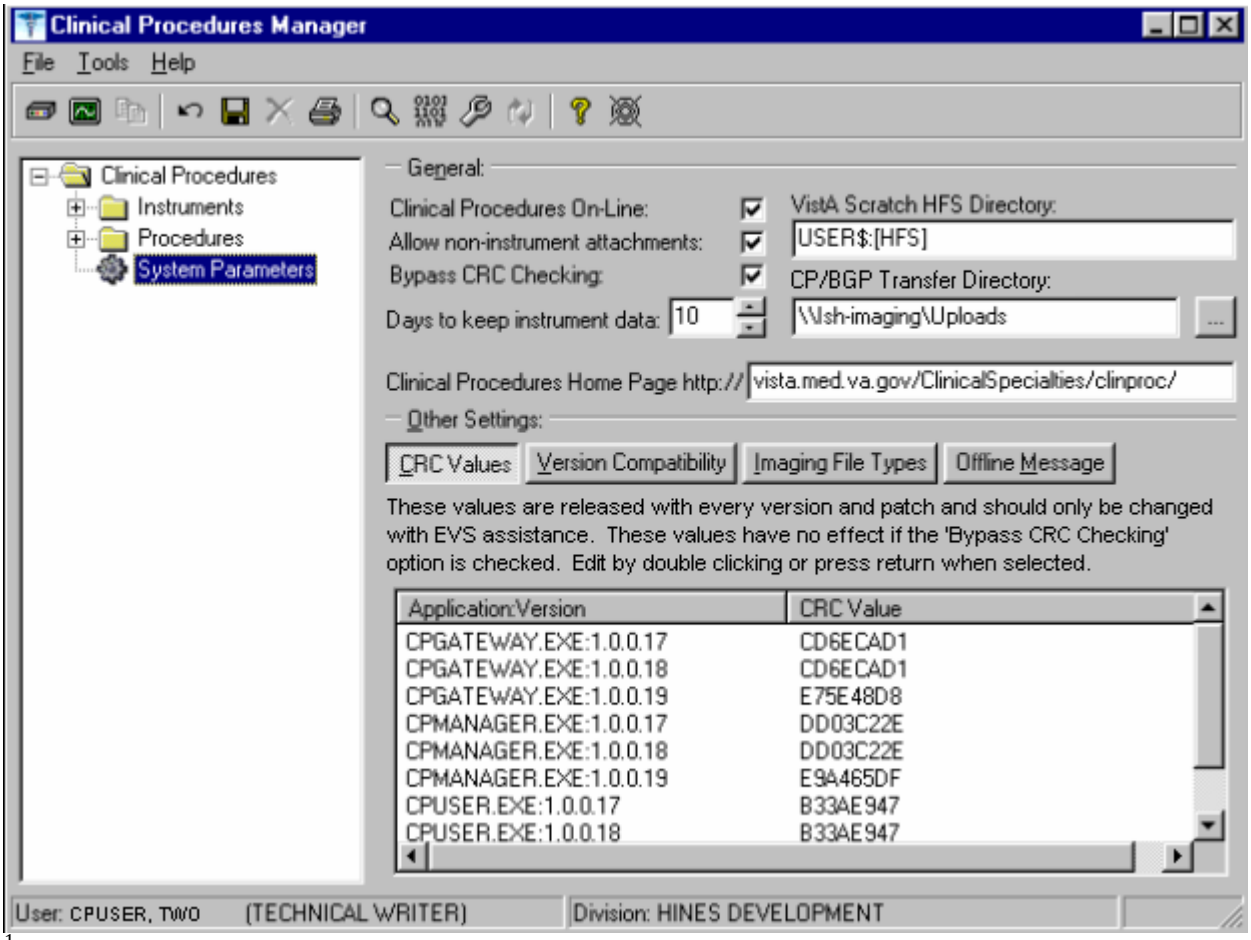
* Indicates fields that must be filled in for CP to work properly.

Allow non-instrument attachments
Bypass CRC Checking
Clinical Procedures Home Page
*Clinical Procedures On-Line
[1]* CP/BGP Transfer Directory
CRC Values
Days to keep instrument data
Imaging File Types
Offline Message
Version Compatibility
* VistA Scratch HFS Directory

[1] Patch MD*1.0*4 September 2006 Imaging Network Share directory name changed to CP/BGP Transfer Directory.

1. Click **System Parameters**, which is displayed under the Clinical Procedures folder. The System Parameters Edit window is displayed. See Figure 6-10.

2. Enter information in the necessary fields and in the optional fields as needed by your site.



[1]Fig. 6-10

Allow non-instrument attachments

Select if you want to let users attach files from the network to studies. If selected, the +Files icon displays in the Study window in CP User and lets the user select attachments. Indicates if external attachments (documents) are allowed including when an instrument has not created data.

[1] Patch MD*1.0*4 September 2006 Imaging Network Share directory name changed to CP/BGP Transfer Directory.

Be sure to select **Allow non-instrument attachments** if you selected the **Require External Data field** in **CP Manager** for a specific procedure. If you do not select Allow non-instrument attachments, you will not be able to attach files to a procedure.

Bypass CRC Checking

Select if you want to bypass CRC (Cyclical Redundancy Check) during startup. When a CP application starts up, it can check with the server to be sure that the checksum of the application that is running is the same as the checksum of the application that was distributed. If the checksum values do not match, a message displays stating that the values do not match. Even if values don't match, you can continue using CP.

The checksum value is associated with the version number of the software. You might want to bypass this check when your site is running CP in test mode. If you are running different versions of the application, then the checksum values will not match.

Clinical Procedures Home Page

Displays the Clinical Procedures home page and directs the browser to this page when accessed. This parameter is used by the client application in the Help menu when the user selects the option Clinical Procedures on the Web.

Note: The MDPOST routine in the KIDS build sets this field during installation. The data in the parameter is predefined. Do not modify this parameter unless the site is performing local modifications to the client software.

Clinical Procedures On-Line

Must select if you want to use CP User and CP Gateway. If this parameter is not selected, a warning message is displayed. (If a message has been entered into the Offline Message parameter, that message is displayed when the user tries to access CP User.)

This parameter is only effective when the VistA system is functioning and it is useful if you want to restrict access to Clinical Procedures. For example, you can set this field to offline if you are loading a newer version of CP.

CP/BGP Transfer Directory

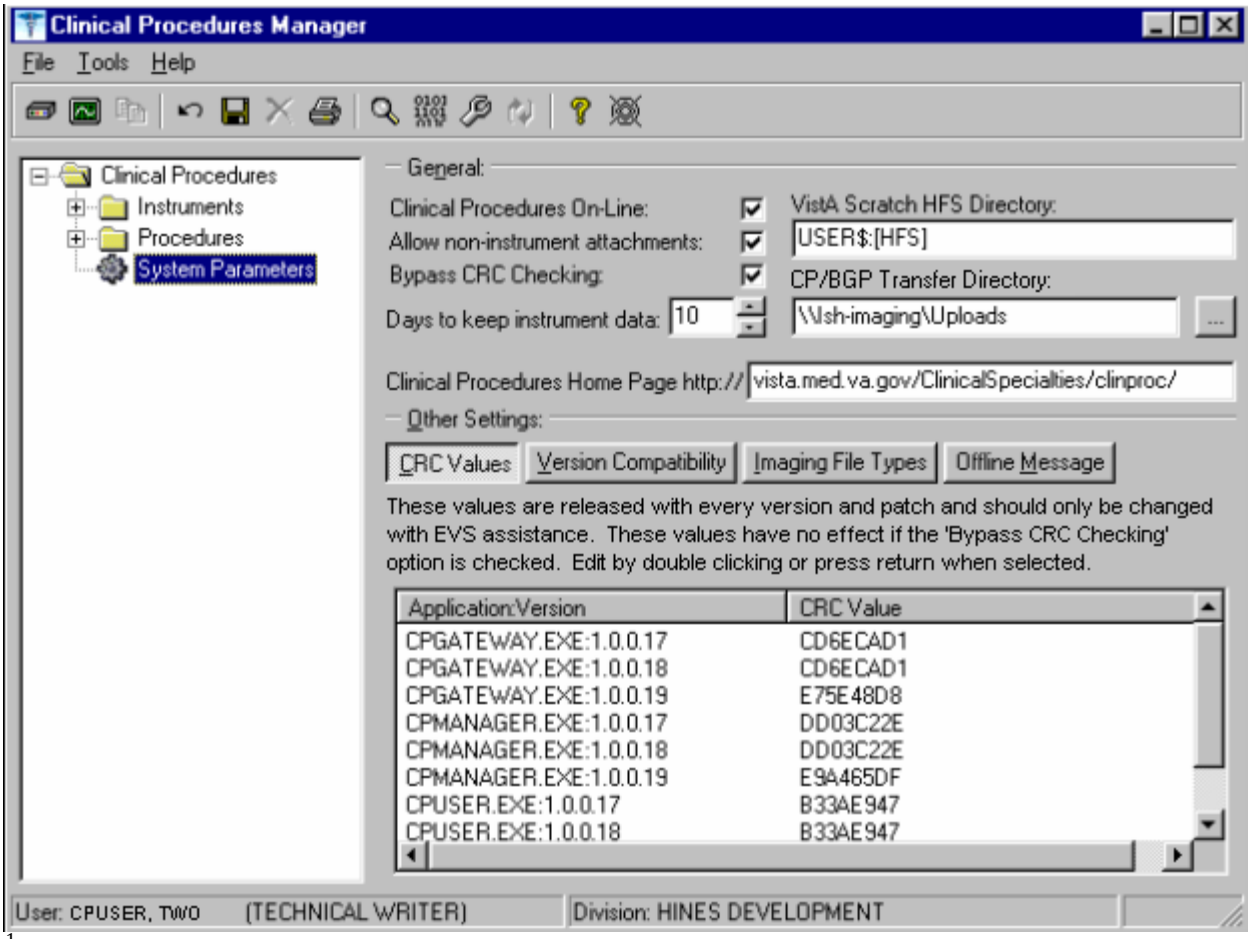
Enter the shared directory that is accessed by the Imaging Background Processor (BGP) and CP Gateway. Reports generated from text need to be placed in a location that can be accessed by the BGP. The Network share must not reside physically on the Imaging RAID. You can also use Browse to select the directory. Must be filled in for CP to work properly.

CRC Values

A site can check that a specific build of the application is running on the client. This level of checking is not mandatory and you can use the Bypass CRC Checking parameter if the site does not want this level of security.

If a site is running more than one version of the application or is testing a new patch, this field can contain multiple entries, (Fig. 6-11). Each entry contains the name of the application with extension (no directory path) followed by a colon ':' and the executable version number '#.#.#.#'. Each of these entries contains the CRC value for that particular version of the executable. You can also obtain CRC values for a version of an executable from the About menu or by selecting **CP Manager > Tools > Calculate a File's CRC Value**.

Note: The MDPOST routine in the KIDS build sets this field during installation. The data in the parameter is predefined. Do not modify this parameter unless the site is performing local modifications to the client software



[1]Fig. 6-11

[1] Patch MD*1.0*4 September 2006 Imaging Network Share directory name changed to CP/BGP Transfer Directory.

Calculating a File's CRC Value

You can calculate a file's CRC (Cyclical Redundancy Check) value to determine if the file is the exact same file as the one that was distributed. CRC values are recalculated every time an application is compiled.

1. Select **Tools > Calculate a file's CRC Value**.
2. Select the file.
3. You can copy the CRC value and paste it into a text file for reference purposes.

Days to keep instrument data

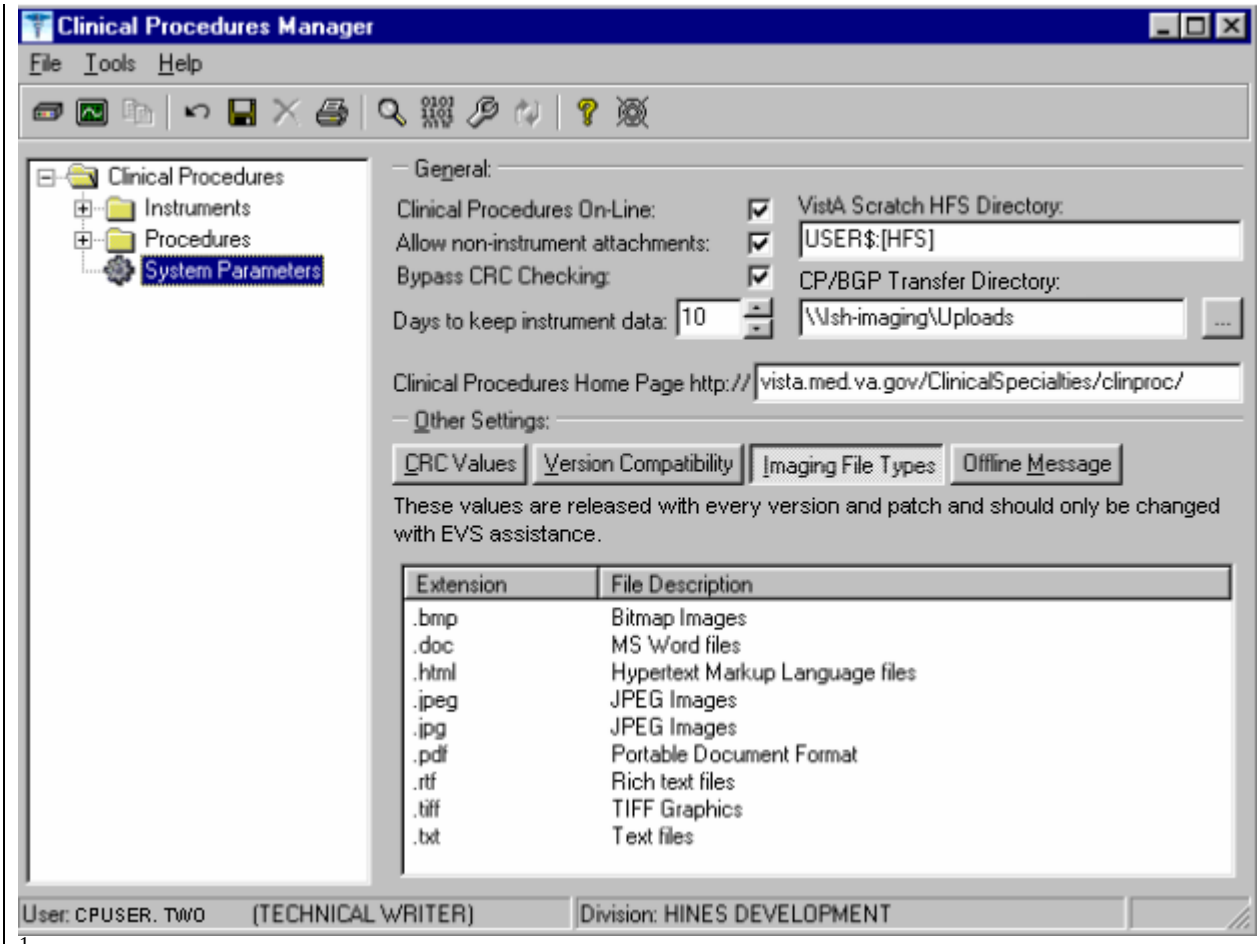
Enter the number of days (0-365) to save data from auto-instruments, after the data has been associated with a Clinical Procedures study. If the data has not been associated with a study, the data is not purged from the temporary storage area. Enter 0 or leave the field empty if you want the data to be retained forever.

Note: CP Gateway purges data daily. This purge only deletes the raw data that comes from the instrument. CP Gateway keeps data for a specified number of days based on the entry in "Days to keep Instrument Data". Data older than this is purged. The data in Item Value field (#.1) and Item Text field (#.2) of the Upload Item multiple in the CP Results file (#703.1) are purged.

Imaging File Types

Verifies that a file type submitted by an instrument or user is acceptable and can be sent to the VistA Imaging RAID. The Open a Study option in CP User uses this system parameter to determine if a file is an acceptable file type, (Fig. 6-12).

Note: The MDPOST routine in the KIDS build sets this field during installation. The data in the parameter is predefined. Do not modify this parameter unless the site is performing local modifications to the client software

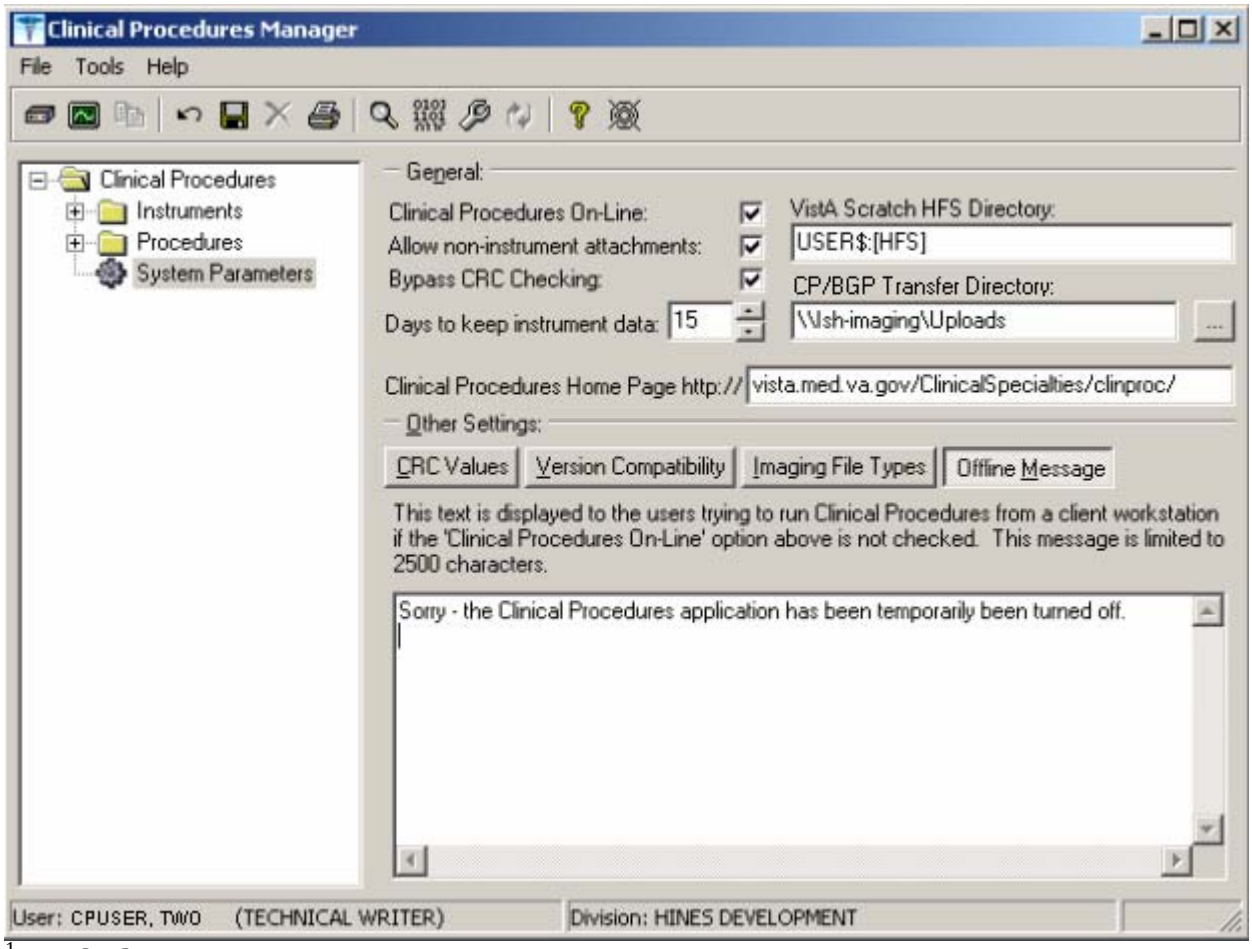


[1]Fig. 6-12

[1] Patch MD*1.0*4 September 2006 Imaging Network Share directory name changed to CP/BGP Transfer Directory.

Offline Message

Enter a message that users see when they try to activate CP User and Clinical Procedures is offline. This message only displays when the Clinical Procedures On-line parameter is not checked. See Figure 6-13.



[1]Fig. 6-13

Version Compatibility

Displays a list of client versions, identified by their executable name and windows file version, which are compatible with the currently running server version. More than one version of the software may be flagged as compatible for backward compatibility. See Figure 6-14.

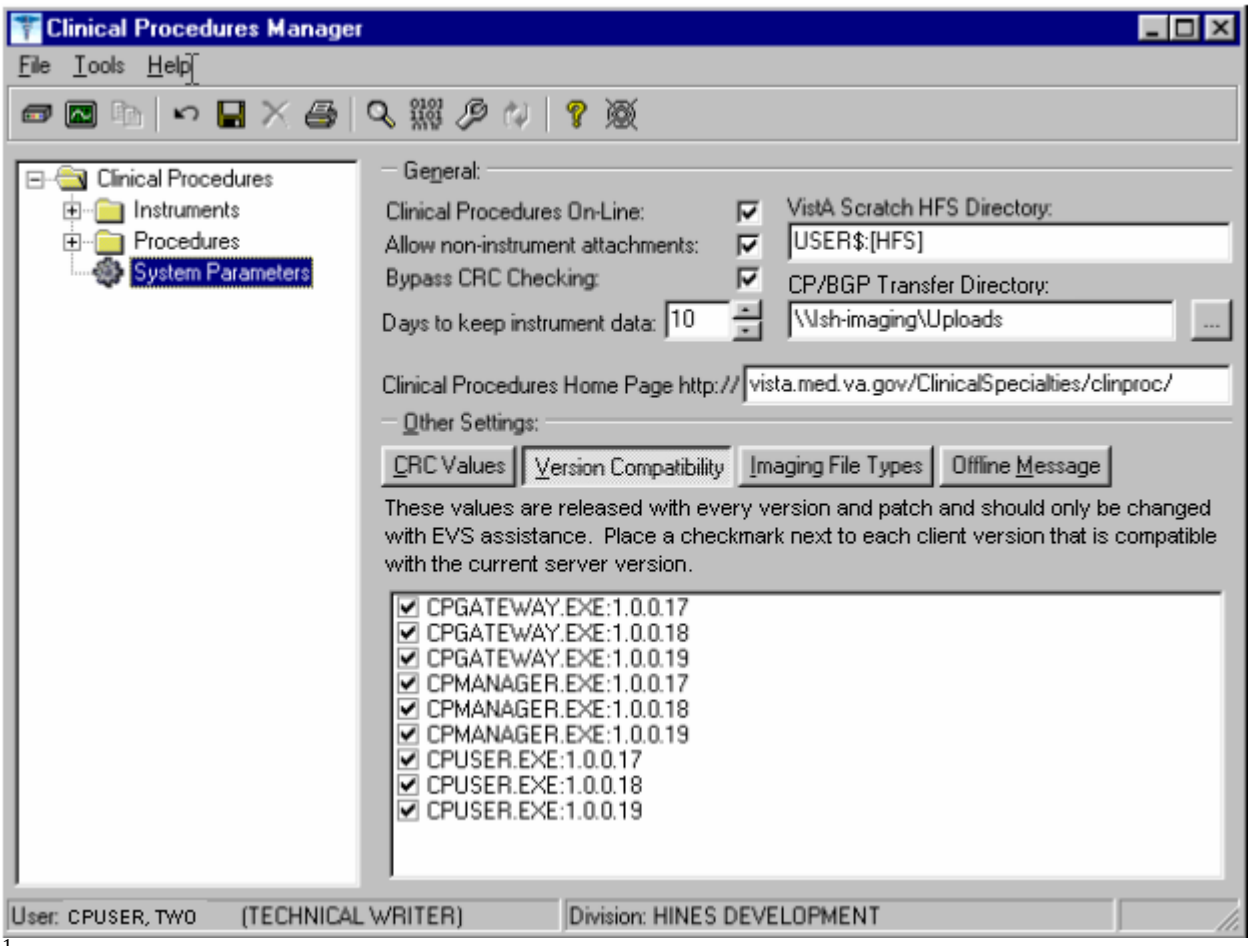
To check the client version number:

1. Open **Windows Explorer** and locate the Clinical Procedures folder.

[1] Patch MD*1.0*4 September 2006 Imaging Network Share directory name changed to CP/BGP Transfer Directory.

2. Right-click CPGateway.exe, or CPUser.exe., or CPManager.exe.
3. Select **Properties**, and then click the **Version** tab. The version number, such as 1.0.0.17, is displayed.
4. Go back to **CP Manager**. Double-click **Clinical Procedures**, and then click **System Parameters**.
5. In the **Version Compatibility** tab, select each version that is compatible with the current server version, (Fig. 6-14).

Note: The MDPOST routine in the KIDS build sets this field during installation. The data in the parameter is predefined. Do not modify this parameter unless the site is performing local modifications to the client software



[1]Fig. 6-14

If an executable version is not compatible, the following message is displayed when you try to use a Clinical Procedures application:

[1] Patch MD*1.0*4 September 2006 Imaging Network Share directory name changed to CP/BGP Transfer Directory.

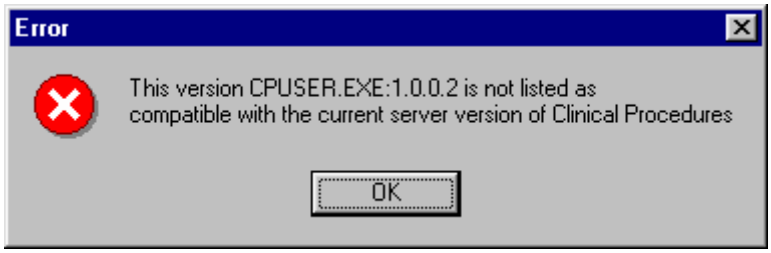


Fig. 6-15

If the application is CP Manager, the user is allowed to continue. If the application is CP User, the user needs to contact IRM because the client needs to be upgraded to the current version.

VistA Scratch HFS Directory

Clinical Procedures uses the Host File Server (HFS) functionality in the VA Kernel to create reports. VistA broker processes require full read, write, and delete access to this directory. (Check with IRM about this directory.) If this directory is not filled in, CP tries to use the broker environment directory. Must be filled in for CP to work properly.

11. Index